

DOCUMENT RESUME

ED 211 657

UD 022 058

AUTHOR Shade, Barbara S.
 TITLE Afro-American Cognitive Style: A Variable in School Success?
 INSTITUTION Wisconsin Univ., Madison. Research and Development Center for Individualized Schooling.
 SPONS AGENCY National Inst. of Education (ED), Washington, D.C.
 REPORT NO WRDCIS-TP-94
 PUB DATE Oct 81
 GRANT OB-NIE-G-81-0009
 NOTE 60p.

EDRS PRICE MF01/PC03 Plus Postage.
 DESCRIPTORS *Academic Achievement; Affective Behavior; Black Culture; *Blacks; *Cognitive Style; Cross Cultural Studies; *Cultural Differences; Elementary Secondary Education; Instructional Improvement; Nonverbal Communication; *Performance Factors; Facial Differences; *Socialization

ABSTRACT

A review of the literature indicates that black Americans have attempted to adapt to social situations by developing unique cultural patterns and a specific method of organizing and processing information. The latter is manifested in the way they pay attention to social cues, attach subjective meanings to words, show preference for social distance, and use nonverbal communication extensively. This particular thinking style affects cognitive development; observed differences in school success between black students and other groups may be attributed to black students' use of an information processing style which is not the preferred strategy in an educational setting. A stylistic approach to learning which would fit material to children's particular cognitive and affective behaviors may have a positive effect on black school achievement.
 (Author/MJL)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED211657

Theoretical Paper No. 94

AFRO-AMERICAN COGNITIVE STYLE:
A VARIABLE IN SCHOOL SUCCESS?

by

Barbara J. Shade

Report from the
Learning and Development Program Area

Barbara J. Shade
Faculty Associate

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

✓ This document has been reproduced as
received from the person or organization
originating it.
Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official NIE
position or policy.

Wisconsin Center for Education Research
The University of Wisconsin
Madison, Wisconsin

October 1981

UD022058

Published by the Wisconsin Research and Development Center for Individualized Schooling. The project presented or reported herein was performed pursuant to a grant from the National Institute of Education, Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the National Institute of Education should be inferred.

Center Grant No. OB-NIE-G-81-0009

3

WISCONSIN R & D CENTER

MISSION STATEMENT

The mission of the Wisconsin Research and Development Center is to understand, and to help educators deal with, diversity among students. The Center pursues its mission by conducting and synthesizing research, developing strategies and materials, and disseminating knowledge bearing upon the education of individuals and diverse groups of students in elementary and secondary schools. Specifically, the Center investigates

- diversity as a basic fact of human nature, through studies of learning and development
- diversity as a central challenge for educational techniques, through studies of classroom processes
- diversity as a key issue in relations between individuals and institutions, through studies of school processes
- diversity as a fundamental question in American social thought, through studies of social policy related to education

The Wisconsin Research and Development Center is a noninstructional department of the University of Wisconsin-Madison School of Education. The Center is supported primarily with funds from the National Institute of Education.

Table of Contents.

	Page
Abstract	vii
Cultural Foundations of Afro-American Thought	2
Afro-American Social Cognition	5
Socializing Influences on Cognition	9
Afro-American Style of Knowing	12
Afro-American Perceptual Style	14
Afro-American Conceptual Style	17
Afro-American Personality Style	20
Cognitive Style and the Schooling Process	26
Cognitive Style or Perceptual Style?	31
Cultural Style and Learning	35
References	39

Abstract

During the decade of the seventies, increased attention was given to the study of factors which contribute to individual differences in academic performance. Areas which generated particular concern and increased consideration were sex roles, social class, developmental changes, and race. Until recently the last variable was interpreted to mean variation as determined by the color of the child's skin. Current orientation, however, redefines the concept as ethnicity with a culturally induced lifestyle and perspective. Proponents of this approach suggest that the diversity found in task and academic competence is precipitated by differences in culturally induced psychological, cognitive, and behavioral strategies rather than ability differences. This theoretical review examines this idea as it relates to Afro-Americans.

Afro-American Cognitive Style:

A Variable in School Success?

The most important issue facing Afro-Americans today is the task of promoting the educational success of Afro-American youth. At first glance, this statement seems to be a gross exaggeration. After all, today more Afro-Americans than ever before are attending and completing high school. More members of the group are enrolled in colleges, universities, and professional schools; and subsequently, more Afro-Americans are securing jobs throughout the occupational structure. However, if the statistics and situation are examined closely, one notes these increases have not been of sufficient magnitude to balance the unequal status of Afro-Americans in the social, economic, and political systems of this country. Why does this group social immobility continue?

Among the reasons promoted for this state of affairs is the concept that, as a group, Afro-Americans lack the ability to acquire the skills and knowledge necessary to perform the required societal tasks. Evidence for this point of view is cited from studies in the educational arena which compare scores of ethnic groups on intelligence and achievement tests or teacher evaluations via grades. Unfortunately, while there is a preponderance of evidence which indicates many Afro-American youth are capable of performing on these measures of educational achievement (reviewed by Shade, 1978), there is also a consistent pattern of lower performance on these success indicators by Afro-Americans as a group (Wright, 1970; Ogbu, 1978).

When skin color is not a consideration, social scientists are apparently

prepared to concede that individuals or groups who are dissimilar in age, social class, environment, sex, or other factors can legitimately differ in grades, scores on standardized tests, or other performance measures. However, when the issue of Afro-American difference is introduced, inferiority rather than diversity becomes the explanatory base.

In recent years, this inferiority explanation has been replaced with the adaptational/survival premise. Proponents of this thesis suggest that Afro-Americans developed a parallel culture in response to their isolation through discrimination, slavery, and ghettoization. Using the various elements of African culture patterns they were able to retain while acquiring others from the Europeans with whom they had contact, Afro-Americans developed an approach to life which assisted in their survival.

In addition to the unique communicative patterns, family structures, art forms, and world view, it is the contention of these theorists that Afro-Americans also developed a culturally specific method of organizing and processing information. This processing strategy apparently proved an effective adaptational tool in social situations. However, Cohen (1969) and others have concluded that this culturally specific strategy differs from the one required in the typical educational setting. The result is an information processing strategy conflict which works to the disadvantage of Afro-Americans in school settings and limits their access to other areas of society. This paper will explore this possibility.

Cultural Foundations of Afro-American Thought

Do Afro-Americans process information from the environment differently than do

other groups? Based upon his observations of Afro-Americans, Hilliard (1976) would answer affirmatively. He suggests that Afro-American people (a) tend to view things in their environment in entirety rather than in isolated parts, (b) seem to prefer intuitive rather than deductive or inductive reasoning, (c) tend to approximate concepts of space, number, time rather than aiming at exactness or complete accuracy, (d) prefer to attend to people stimuli rather than nonsocial or object stimuli, and (e) tend to rely on nonverbal communication patterns as well as verbal communication. The reason for these differences is found within Afro-American culture.

Culture is a rather abstract term but is generally defined as the rules used by members of a particular group to govern the interaction with each other and the environment. Berry (1976) considers culture to be a way of life or a learned pattern of behavior which is unique to a group of people. Cohen (1974) defines it as a process of adaptation. The general view held of Afro-American culture is that it is a distinct pattern of thinking, feeling, and acting which has developed as a way of adapting to color discrimination. Charles Keil (1966) suggests that this pattern is an "experiential wisdom" which provides Afro-Americans a unique outlook of life or world view.

All groups of people seem to have a Weltanschauung or world view which serves as the philosophical underpinnings of their behavior. This view seems to focus on meeting the demands and challenges presented by people and social situations in ways which will preserve their physical, spiritual, or psychological integrity. Manifestations of this approach show up particularly in interpersonal relationships and social perceptions.

The Afro-American Weltanschauung is that the people within one's environment should be approached with caution, wariness, and a sense of distrust; this idea is vital to the survival of a group of people who live in an urban society and in a society with dislikes predicated on skin color. It is, as Perkins (1975) points out, a way of insuring that the individual does not become a "victim." Attempting to prohibit victimization also requires developing the ability to manipulate the system or individuals with whom one comes in contact in order to achieve certain desired goals. It is, thus, not surprising that a distrustful and manipulative point of view seems to pervade the Afro-American community. In fact, it appears that individuals who are a part of Afro-American culture are taught at an early age to be wary of people and systems within their environment (Halpern, 1973; Shade, 1978; Wubberhorst, Gradford, & Willis, 1971).

This lack of trust and suspiciousness often shows up on measures of personality. McClain (1967) found, for example, that Afro-American college students in the South were more likely to be more suspicious and apprehensive than whites in the standardization sample of the 16PF personality form. Similar findings were reported for lower class hardcore unemployed Afro-Americans (Triandis, 1976), for those in prisons (Berman, 1976), and for those in counseling (Wright, 1975). Although the subjects of many of the studies were people having problems, the idea of distrust or having a healthy suspicion of others seems to be considered a trait rather typical of Afro-Americans in general (Halpern, 1973; White, 1980). This suggests that there is a basic cultural consensus as to what represents trustworthiness and as, several authors point out, Afro-Americans appear to determine this on nonverbal behavior rather

than on verbal cues (Roll, Schmidt, & Kaul, 1972; Switkin & Gynther, 1974; Terrell & Barrett, 1979).

Yarian (1974) suggests that heroes as cultural emblems of a group of people are also excellent indications of the group's perspective of the world. Within Afro-American folklore and music there are the tales of the animal or slave trickster who manages to talk or literally trick his oppressors or captors into letting him escape. Other heroes are those who are just so tough and formidable that they bully their way through life, even if it requires violence. Perhaps, however, the most prevalent hero is the one which Levine (1977) calls "the moral hard man," who beats society using society's own rules. Within Jerome Taylor's (1980) typology of Afro-American heroes, this "moral hard man" might well be the "splendid performer," the "man of integrity," the "independent spirit," or the "group leader."

As a part of this people awareness and need to control the environment, or perhaps as a result of it, Afro-Americans seem to develop a unique affective or personal orientation which manifests itself in attention to social cues, subjective meanings attached to words, preference for social distance, and sustained use of nonverbal communication. These characteristics are discussed in turn below.

Afro-American Social Cognition

In studies in which groups were compared on their attentiveness to cues in the faces of other people, Afro-Americans were found to focus on very different cues than Euro-Americans and subsequently developed different recognition patterns. In a study using black and white females, Hirschberg, Jones, and Haggerty (1978) found that the Afro-American subjects paid much more attention to the affective characteristics of the pictures of male faces than to

the physical characteristics. In other studies of this phenomena, it was found that although both groups seem to pay closer attention to the faces of people of their own racial group (Chance, Goldstein, & McBride, 1975; Galper, 1973; Luce, 1974), Afro-Americans seemed better at discerning facial emotions displayed by individuals regardless of their race (Gitter, Black, & Mostofsky, 1972).

Not only are Afro-Americans better at attending to facial cues, they also appear to detect different social reactions and nuances. A study done by Hill and Fox (1973) of a military situation found that Afro-American and Euro-American squad leaders had entirely different perceptions about the climate and interrelationships of the people in their squads. Euro-American squad leaders reported more of a perceived need to give reprimands to subordinates of their own race and better performance ratings to subordinates of other racial groups. Afro-American squad leaders did not make these types of distinctions and also reported perceptions of better relationships between themselves and their subordinates.

A similar study conducted in a school environment (Witmer & Ferinden, 1970) reported similar differences in interpersonal perceptions. When teachers were questioned about staff relationships in a recently desegregated school, Afro-American teachers indicated a perception of more teacher-to-teacher conflict than Euro-American teachers. At the same time, they reported having a better rapport with the nonacademic staff as well as the students. As in the previous situation, racial differences in perceptions of social interactions seemed to polarize with Afro-Americans responding more to the people in the situation and the Euro-Americans responding more to the task requirements.

7

This difference is also found in studies of the social meanings assigned to words. Landis, McGrew, Day, Savage, and Saral (1976) asked groups of Afro- and Euro-American middle-class and hard-core unemployed males to respond to a word list on a semantic differential scale. Regardless of class, racial differences emerged in the values attached, emotional reactions generated, and the potency assigned to the words. For example, the most highly valued words for Afro-Americans and not for Euro-Americans are quality-of-life words such as progress, success, future, and money. Words having the most positive response and value for Euro-Americans and not for Afro-Americans were words such as marriage, work, and hope. In the personal relationship category, words such as truth, respect, and sympathy were valued highly by Afro-Americans while Euro-Americans preferred such words as love. On the other hand, Euro-Americans responded with more emotion and negativism to words such as battle, danger, trouble, crime, and confrontation while Afro-Americans showed neutrality.

In another study of differences in social perceptions Szalay and Bryson (1973) found that words representing themes of racial integration, individual needs, and social problems were perceived as having higher value by Afro-Americans while Euro-Americans preferred word domains representing various "isms," national loyalty, and health concerns. The response variation apparently represents differences in attached affective meanings.

Perhaps the area in which differences in interpersonal style are most evident is that of social distance. Social distance involves the expanding and contracting physical space surrounding the individual (Liebman, 1970). The perception of social cues, ideas, and attitudes is affected by the amount of physical separation demanded by the individual for social interaction. Those

who permit individuals to come close gather one sort of information while those who demand greater separation receive other types of cues (Hall, 1966). The result is a manifestation of different social cognitive behavior.

Studies using adult samples noted a closer social distance preference among Afro-Americans. Bauer (1973) found this to be true for college students as did Hall (1966), Connally (1974) and Liebman (1970). Willis (1966) reported the opposite finding for older Afro-American adults; however, the significance level chosen for potential error determination was extremely high. This finding, thus, had a high probability of being a chance occurrence based upon the situation and should probably be disregarded.

When compared to other ghettoized, high-involvement groups, Afro-Americans showed little difference in social distance requirements, at least in a street-meeting situation, Jones (1971). However, in a study done by Baxter (1970) Afro-Americans seem to prefer greater social distance than Mexican-Americans. As the dyads were observed watching animals in a zoo, this study would appear to be measuring the degree to which individuals faced each other rather than face-to-face social distance measured in other studies; if this is the case, then the Baxter findings are not inconsistent with the trends previously noted.

The differences noted for Afro-Americans on this dimension seem to depend upon the situation in which the proxemic research was conducted. In studies of children in grades one through four, Afro-Americans tend to stand closer for purposes of communication than other ethnic groups observed (Aiello & Jones, 1971; Duncan, 1978; Jones & Aiello, 1973). Scherer (1974) studied the same age group using photographs of interacting dyads. Although no significant difference was found, the trend was in the expected direction. However, Zimmerman

and Brody (1975) observed fifth and sixth grades and found that Euro-American children of this age group permitted closer social distance than Afro-American children. Unlike subjects in other studies, these children did not know each other and came to the experimental situation from different neighborhoods. The fact that this study was done in a laboratory situation rather than a naturalistic setting, as were the others, probably accounts for the difference in the results. In a later study, again the closer personal space among Afro-American elementary school children was found (Willis, Carlson, & Reeves, 1979).

Socializing Influences on Cognition

The differences in perception of the world, of people, of events is indicative of the unique socialization experiences of Afro-Americans. In her studies of the Afro-American socialization patterns, Young (1970, 1974) found that child training mechanisms of the Afro-American kinship group seemed to emphasize attending to cues and developing behavior which is compatible with learning to survive. As they receive status-oriented and inconsistent discipline, children learn to judge and adjust to moods of people in authority. At the same time there exists a respect for the child as an individual which permits the maintenance of a strong sense of an independent self. This type of socialization pattern is found throughout the Afro-American community and is found particularly in families which are part of a kinship network.

The Afro-American kinship network is a multigenerational social network of relatives, friends, and neighbors (Aschenbrenner, 1972; MacAdoo, 1977; Martin & Martin, 1978; Stack, 1974). Although previously viewed as a less than desirable structure, recent research efforts have found it beneficial in that this network acts as a buffer for Afro-Americans against negative ecological forces and serves

as a cultural facilitator and mediator. Through this network, Afro-American individuals and their nuclear family system are able to give and receive emotional, physical, psychological, and social support.

As members of this kinship system, Afro-Americans are urged and trained in the concept of collective responsibility, to respond to the authority of a dominant family figure, and, at the same time, to seek and move toward independence (Martin & Martin, 1978; Aschenbrenner, 1972). The amount of independence, however, seems to depend upon the economic plight of the network. As in the earlier Barry, Child, and Bacon study (1959), the greater the need for mutual support for financial and economic survival, the greater the pressure for kinship support and less independence.

The mother-child relationship within the Afro-American family and the kinship or extended family system seem to have an effect on children in several areas which are particularly significant in the development of their information processing preference. As already noted there appears to be a concentration and particular stress on interpersonal relationships. In addition, Young (1974) notes that the socialization techniques tend to frustrate the child's interest in the "object world." In fact it appears that by the age of two, children have been refocused to people stimuli rather than nonhuman stimuli. When Yarrow, Rubenstein, Peterson, and Kowski (1971) examined this preference of Afro-American infants for humans as opposed to inanimate objects, they found that the two aspects of the environment were strikingly independent.

Carpenter, Tecce, Stechler, and Friedman (1970) also examined the response style of Afro-American infants by exposing them to three types of stimuli: the mother, a manikin, and an abstract picture. The authors noted that the mother,

as the most familiar stimulus, received less of the child's attention than the other two items. This response was interpreted to be the result of familiarity and less color. Of the other two presentations, it was noted that these infants attended more and for a longer period of time to the mannikin or human-like face than the abstract stimuli. One must wonder if this also represents a finding of person-over-thing orientation.

Although their study was not oriented to the examination of racial differences per se, Lewis and Wilson (1972) did examine the mother-child relationship of 32 twelve-week old infants of which a large portion were Afro-Americans. They found that lower socioeconomic mothers were more likely to touch their children, hold them, and smile at them; these behaviors were interpreted as exhibitions which would strengthen the attachment bond rather than instituting "distancing." Distancing behaviors were interpreted as those which help the child separate self from the immediate environment and move toward the achievement of representational thought. Bruner, Olver, and Greenfield (1966) describe this developmental phenomena of "distancing" as an important progression for cognitive growth. As children move from the stage in which action and objects are fused to the point of being able to represent objects independent of the actions taken toward them, they are developing their memory and abilities for representational thought. More important, they are setting the stage for learning to handle abstract concepts.

Young (1974) also noted another information processing difference in that Afro-American children are apparently taught to concentrate on many stimuli at one time rather than learning to concentrate on one. Boykin (1979) refers to this as "behavioral verve." He found that, when presented with information

which requires some type of problem-solving performance, Afro-American children did markedly better if the formats had high variability. The author concluded that Euro-American children seemed to have been socialized to tolerate monotony or unvaried presentation of material. Afro-American children, however, required a great deal of stimulus variety.

When one considers the position of Afro-Americans in society, it seems clear that this variation in cue perception and an orientation to interpersonal relatedness is vital. As sociologists within the community point out, Afro-Americans require a special antennae which helps them differentiate between situations and people. By being able to determine certain emotions, attitudes, and needed behaviors, Afro-Americans can determine which situations or people are friendly and which are hostile. Being able to do this is a matter of psychological and physical survival. However, this particular thinking style may also have an effect on Afro-American cognitive development.

Afro-American Style of Knowing

How do children come to know the world? The scholars who have examined this question suggest that the process involves perception, memory, and learning to handle various ideas, images, and concepts. Although there are obviously some universal commonalities in the process, there are also some individual and group differences. As Cole and Scribner (1974) point out, a child's method of perception, memorization, and thinking are inseparably bound to the patterns of activity, communication, and social relations of the culture in which the individual is socialized.

The relationship between culture and the cognitive development of the individual has become a familiar and provocative theme in cross-cultural psychology.

However, although this relationship is accepted for differentiating western and non-western cultures, it is not widely applied to subcultures within American society. Rather than agree to the idea that the differences found in cognitive approaches might be related to a subcultural strategy, researchers generally promote the idea that ethnic differences and genetic makeup create the variation.

An example of this approach is found in a study by Lesser, Fifer, and Clark (1965). In this study, four specific ethnic groups were examined using tasks which required different cognitive processes, i.e., verbal memory, concept formation, numerical memory, and spatial relationships. The results indicated that each of the four ethnic groups, regardless of the difference in performance due to socioeconomic status, displayed a distinct pattern. Of the four groups, Afro-Americans were high on the verbal task but lowest of the four on the space conceptualization task. A similar finding emerged in a replicated study (Stodolsky & Lesser, 1967). In a similar study, Leifer (1972a) compared Afro-Americans to three other ethnic groups on the Lowenfeld Mosaic, Geometric Figures Task, Incomplete Man, and Verbal Fluency Tasks. Again distinct ethnic group patterns in performance emerged.

Such studies are used as indications of ethnic differences in cognitive growth. Recently, however, some anthropologists and psychologists have used these results to infer that groups of people differ in the kinds of differentiations and inferences they make because they are trained to pay differential attention to different aspects of the environment. Rather than view these differences as ethnic variations in native ability, these scholars have chosen to study them as variations in cognitive style.

Over the years, scholars have identified a myriad of terms, definitions,

and concepts which have come to be labeled cognitive style. This term represents a superordinate construct that accounts for individual preferences in various cognitive, perceptual, and personality dimensions which influence differences in information processing. As one examines the literature in the area, however, it is noted that these styles can be placed into approximately three categories: Category 1 includes those emphasizing visual-spatial preferences; Category 2 includes those which are more concerned with strategies for concept attainment and thus focus on categorization and abstraction preferences; Category 3 seems more oriented toward personality, ways in which the individual views and responds to information about the world or environment. As Kogan (1971) points out, these styles vary in the amount of empirical substantiation available, the philosophical underpinnings, the methodological sophistication developed, and the situational implications to which they apply.

The question of whether or not there is a specific cognitive style which can be attributed to being an American of African descent cannot be definitively answered at this time. However, there does appear to be a racial difference in each of the dimensions subsumed under the cognitive style construct. Let us examine the research in each of these areas.

Afro-American Perceptual Style

A person's perceptual problem-solving strategy represents the method through which an individual gathers and translates information from the environment. Although all sensory modes are involved in this process, visual perception seems to be the one most often included in the cognitive style investigations. No doubt this emphasis is the result of the high visual orientation of American culture.

The area most often studied in the examination of perceptual aspect of cognitive style is the concept of field-dependence/field-independence or field articulation. This concept, as developed by Witkin and his associates, denotes the ability of an individual to visually structure or select out and use relevant information embedded in a larger interrelated context (Witkin, Dyk, Paterson, Goodenough, & Karp, 1962). Individuals who are unable to distinguish necessary parts in order to solve the problem are said to be more global and interrelated in their approach to visual information and are classified as field-dependent persons. Individuals who can abstract the necessary parts from the totality of the material regardless of the distracting elements in the visual field are said to be field-independent.

The literature in this area using Afro-American subjects is extremely small and is found largely in unpublished dissertations. In the few studies available, Afro-Americans seem to tend toward the field-dependent end of the continuum.

Perney (1976) tested 40 sixth-grade children (age 12) equally divided between race and sex using the Embedded Figure Test (EFT). Not only were sex differences present, but racial differences also existed, with Afro-Americans exhibiting significantly more field-dependence than Euro-Americans. Although no difference was found on the same test for boys of similar age in the study done by Karp, Silberman and Winters (1969), racial differences were found in the Block Design Subtest of the Wechsler Intelligence Scale for Children (WISC), a test which correlates highly with the EFT. Again, as in the other study, Afro-Americans were more field-dependent while the Euro-Americans tended toward field-independence. Using the concept of body differentiation as measured by the Rod-and-Frame Test, Rameriz and Price-Williams (1974) found a similar

relationship between race and field-dependence. Afro-Americans and Mexican-American children in the fourth grade seemed to prefer the field-dependent approach while Euro-Americans demonstrated a field-independent preference.

In studies in which the age dimension is not controlled, mixed findings are generally reported. Ritzinger (1971) examined a racially mixed group of children aged 6-11 who agreed to participate in a child development research project. Based on the scores obtained on the Embedded Figures Test, Euro-American children appeared to be much more differentiated than the Afro-American children. These racial differences seemed to disappear when socioeconomic class was controlled. In the report of her comparison of racial groups from the third, fourth, fifth, and ninth grades, Schratz (1976) indicates no racial differences in the pre-adolescent group but significant differences in the adolescent group. Again, the result indicated less perceptual differentiation among Afro-Americans. Racial group differences on the field-dependent/independent continuum were also found in eighth-grade boys (Gamble, 1971) and in the high school males examined by Barclay and Cusumano (1967); the mean age of the students in this study was 15.4.

Whether this variation in field orientation continued into adulthood is not known. In one study in which college students between the ages of 16 and 21 were studied using the Embedded Figures Test, no racial differences in field articulation ability were found (Schmultz, 1975). However, the comparison group consisted of Italian-Americans whose cognitive performance patterns seem similar to Afro-Americans (Leifer, 1972b). In studies done by this author, racial differences were found in college students at the beginning of their first year of college, but not when the junior level or third year of college had been

reached (Shade, 1981); where differences existed, Afro-Americans were more field-dependent.

In studies in which Afro-American adult subjects were used and no racial comparisons made, both field-independent and field-dependent individuals were identified. However, the designation of individual styles was based upon the scores of the sample using the median as the dividing point. It is, therefore, difficult to tell whether the subjects designated were really field-independent or merely less field-dependent than others in the sample (Birnback, 1972; Chepp, 1975; Shansky, 1976).

In spite of the observed inconsistencies, a pattern seems to emerge which suggests that Afro-Americans have a field-dependent cognitive style. Jones (1978) seems to agree, as will be noted in the discussion on personality style.

Afro-American Conceptual Style

In every environment, individuals are confronted with more information than they are capable of handling. Individuals develop approaches to scanning and focusing on particular elements of the information and for abstracting information that classifies the ideas, objects, or situations. The cognitive style preferences placed in this category examine how people attend to and structure a situation. Also examined are the attributes or relationships most often used in classifying objects or concepts.

Ascertaining the pattern dominating Afro-Americans on this dimension, as with perceptual style, is difficult due to very limited evidence. Carlson (1971) investigated the perceptual organizing preferences of a group of middle-class racially mixed children, aged 5-9. The results indicated that Afro-American children seemed to have difficulty placing visual material into the more discrete

groupings. In another study (Hansley & Busse, 1969), Afro-American children, aged 5-8, were tested on their ability to visually structure an unstructured field. They were asked to name pictured objects both randomly arranged on a card and arranged in a triangle. Using the number of omissions and commissions, the researchers concluded that the card on which the pictures were placed in a spatial relationship proved easier for the children than the one on which the pictures were randomly arranged.

Abstraction style denotes the categorizing preference of individuals, not their capacity to develop concepts (Wallace, 1965; Gibson, 1969). Those individuals who tend to be analytical are prone to group various stimuli based upon the similarity in specific elements. Relational individuals seem to perceive the information on the basis of various thematic or functional relationships. When Sigel, Anderson, and Shapiro (1966) studied the categorizing behavior of middle and lower socioeconomic class Afro-American children, they found significant class differences. Although relational responses were used by the middle-class children, they were more likely to use descriptive-analytical responses based on physical attributes of the objects or pictures. Lower-class children, on the other hand, produced more relational responses based upon the use of the objects or thematic relationships. The authors explained the difference between the two groups as the result of the increasing differentiating ability of the middle class to view the object world in a more objective manner.

In addition to class differences, racial differences have also been noted. Orasanu, Lee, and Scribner (1979) examined Afro-American and Euro-American first and fifth graders and found that, while economic status had an effect

upon categorizing behavior, ethnicity was also responsible for differences. Afro-American children tended to sort lists on a functional basis while Euro-American children used the more descriptive taxonomic approach. This difference in style, however, did not affect successful completion of the task.

Gamble (1971) also found racial differences in categorization style. In this study which compared Afro and Euro-American advantaged and disadvantaged groups from rural, urban, and suburban environments, few differences emerged when class was controlled. However, among the disadvantaged group, the white suburban, and white rural groups exhibited not only greater field independence but also a more analytical categorizing style than the black urban children. In this study, as in the one conducted by Wilde (1973), regardless of race the more advantaged children appeared to have a different differentiating system than those from the lower classes.

Simmons (1979) suggests that any comment about racial difference in categorizing responses must include a consideration of the cultural salience of the stimuli presented. Kogan (1971) agrees. His review and analysis suggests that the strategy selected seems to be a function of the interaction between age and the nature of the stimulus. In addition, methodologies used make it difficult to distinguish whether or not individuals are using the relational style because it is their accustomed style or because it seems to fit the task.

An accompanying concept, and perhaps the most investigated using Afro-American subjects, is the dimension of conceptual tempo. Again, individually preferred modes are evident. In processing information, many individuals are slow to respond, waiting until they gather all the information possible and consider the validity of the solution; these individuals are considered to be

reflective responders. On the other hand, many persons respond immediately to what is presented without regard to potential errors; these individuals are labeled impulsive. Although it is generally assumed that Afro-Americans are more impulsive than other groups (Kagan, 1966), there is a lack of evidence to support this view.

In a study of this dimension by Zucker and Stricker (1968), Afro-Americans were reported to be more impulsive than Euro-Americans in their approach. In this study racial differences were confounded by class differences in that only middle-class subjects were Euro-Americans and only lower-class subjects were Afro-Americans. Even though this was the case in the Fisher (1968) study as well, no differences were found in conceptual tempo.

When they controlled race in the study of this dimension, Mumbauer and Miller (1970) found only class differences. In a study in which class was controlled, Reiss (1972) found no differences between races. While most findings do suggest that the lower class tends to have a higher percentage of impulsive responders, the distribution of reflective-impulsive style individuals seems to more carefully delineate the successful vs. the unsuccessful student (Messer, 1976; Mumbauer & Miller, 1970; Reiss, 1972).

The lack of consistent patterns in this area suggests that perhaps this dimension is not associated with race or with a culturally specific approach but is defined only by the rate of individual development.

Afro-American Personality Style.

The recognition of the interrelationship of the perceptual, conceptual, and personality systems is demonstrated in the research of the various advocates of cognitive style dimensions. Although the field-dependence/field-independence

construct essentially measures the perceptual style of an individual, Wittan and Goodenough (1977) have been able to demonstrate a relationship between stylistic preference and various adapting styles used by individuals. These response styles are essentially placed on an interpersonal as opposed to an impersonal continuum and are described in terms of the individual's personality.

In studies of the relationship between field articulation and personality style, field independent individuals have been found to be impersonal in that they were less interested in people and more interested in things. They also demonstrate a preference for nonsocial situations and for physical as well as psychological distancing, and they have the ability to work independently. One might well describe the field-independent style as a prototype of Reisman's (1950) inner directed personality or Miller and Swanson's (1958) entrepreneurial type.

Field-dependent individuals, however, seem to demonstrate a preference for interpersonal relationships. This preference is manifested through a strong interest in other people, a need and desire to be physically close to people, a preference for social situations, and attentiveness to social cues. These individuals have been identified as particularly well suited for working in cooperative, humanistic situations. In fact, one might describe them as Reisman's (1950) other-directed personality or Miller and Swanson's (1958) bureaucratic personality type. Perhaps the most prominent trait of each of these types is that individuals with this stylistic preference seems to depend heavily on external referents for guidance and information in novel or ambiguous situations and for help in problem solving.

In spite of the fact that Afro-Americans appear to be more externally

oriented, which would be consistent with their apparent preference for field-dependence, studies of the locus of control do not verify this. Among the first studies looking at ethnic differences in this dimension was the one by Battle and Rotter (1963). In this study middle-class blacks and middle-class whites were compared with lower-class blacks and whites. When social class was controlled, no significant differences were found. However, when middle-class Euro-Americans were compared with lower-class Afro-Americans, a significant difference emerged, with Euro-Americans being more internally oriented and Afro-Americans more externally-oriented. Unfortunately, this difference is often reported as a racial difference rather than an economic role difference.

Scott and Phelan (1969), studied unemployed adult males between the ages of 20-28, and racial differences did emerge in the same directions found in the Battle and Rotter (1963) study; these differences may still be a function of the economic role of the groups. Gurin and her associates (Gurin & Epps, 1975; Gurin, Gurin, Lao, & Beattie, 1969) noted that Afro-Americans seem to have a higher ability than others to differentiate between situations in which they have control and those in which other people have the most influence. Studies by Ducette and Wolk (1972) and Kinder and Reeder (1975) seem to support this. Thus, the differences found by Scott and Phelan may reflect the greater understanding of unemployed Afro-American males about their situation and epitomize the Afro-American view of the world.

Jones (1978) examined the relationship between field-dependence and personality traits for Afro-Americans and found that those identified by Witkin and Goodenough (1977) did not correspond to those exhibited by Afro-Americans. Although, as previously indicated, the young adults did tend to be more field-dependent

than their Euro-American counterparts in the study, they exhibited a different interpersonal behavior profile. They were more dominant and socially poised, tended to adhere to more fundamental religious beliefs, were concerned about impulse control, and were power oriented, skeptical, and cynical. They also demonstrated a psychological toughness. On the other hand, they were also less risk oriented, less adventuresome, and more socially conforming than the white students in the sample. Jones suggests that the personality implications for field-dependence may vary for Afro-Americans.

The factor which seems to most affect an individual's adaptation to the environment or personality style is the belief system from which the person operates. The studies in this area are generally oriented toward assessing response patterns as indicators of belief systems. The basic premise underlying these studies is that every person evaluates information received from any situation from a unique perspective. The result is that individuals or groups use their belief systems to distort the world or to narrow it as deemed necessary. Rokeach (1960) refers to this as an open versus closed mindedness and attempted to correlate the idea with that of field articulation. Kelly (1955) identified the style as a part of personal construct formation while Bieri (cited in Goldstein & Blackman, 1978) referred to it as cognitive complexity versus cognitive simplicity. Regardless of the stylistic label, the basic philosophy suggests that, if a person has an open mind, then new ideas, new experiences, tolerance of ambiguous situations, and the need for additional information before making a judgment are part of the individual's typical approach to the world. On the other hand, individuals operating within a closed belief structure would tend to be rigid and perhaps stereotypic in

their thoughts, intolerant of new or ambiguous experiences, and probably make important judgments based upon little information.

As with other aspects of cognitive style, this dimension also has a cultural base. Inasmuch as the cultural base of Afro-American belief systems seems oriented toward surviving in a color-rejecting world, it is not surprising that the cognitive styles identified in this dimension seem oriented toward this type of environmental interaction. Although empirical evidence has yet to be collected, Harrell (1979) has identified a continuum of Afro-American response styles which appear to range from those with a relatively closed approach to those with a high degree of openness relative to their ability to handle race related structures. The styles, as specified by Harrell (1979) are as follows:

Style 1. Continued Apathy. This style is characterized by the recognition that racism does exist and has damaging effects upon the individual. However, no plan of action is proposed and a passive or reactive posture is assumed.

Style 2. Seeking a Piece of the Action. With this style there is a consuming cognitive commitment to making oneself a marketable commodity for the system. The belief system exhibited, while recognizing the existence of racism, is clearly oriented toward achievement within the system. The behavioral choices include the striving for excellence and competence in various spheres of life.

Style 3. Counter-culture Alternatives. This particular cognitive style stresses a counter-culture solution for difficulties and seeks the type of action which is personally rewarding.

Style 4. Black Nationalistic Alternative. The cognitive style represented by this belief system emphasizes total group unity, cohesiveness, and ethnocentrism. Action choices are oriented toward achieving these goals.

Style 5. Authoritarianism. The orientation toward authoritarianism supports rigidity and intolerance of ambiguity in the individual's cognitive organization (Goldstein & Blackman, 1978), but most of all, the individual becomes highly dependent upon authority figures to determine responses to the world. Action choices are determined more by authority than the individual.

Style 6. Cognitive Flexibility. This cognitive style represents an approach which includes the recognition of the situation, the need for change, but an openness for new, different, creative strategies for handling problems and situations. The response style depends upon the situation.

While the dominance of any of these styles might occur with some particular historical event, such as the Civil Rights Movement which obviously fostered and promoted a preponderance of Styles 3 and 4, it would appear that all of these patterns are present within the Afro-American community (McCord, Howard, Friedberg, & Harwood, 1969). Of the three cognitive style dimensions examined, this one appears to exhibit the most diversity within the Afro-American community.

As previously indicated, the question of whether or not there is a specific cognitive style which can be attributed to Afro-Americans cannot be answered unequivocally at this time. However, there does appear to be a racial difference in the visual perceptual approach to the environment with more Afro-American samples demonstrating a tendency toward field-dependence but with perhaps different personality traits than usually found in field-dependent persons. There also appears to be a difference in categorizing behavior oriented more toward the thematic and functional approach than toward specific attributes of the objects categorized. In addition there appears to be a personality style based upon a belief system which concentrates on interracial relationships. What must be determined is whether or not these trends are evident in all strata of the Afro-American community or merely in certain groups. Of equal importance is the need to determine whether or not these styles of perceiving, organizing, and interpreting information exhibited by Afro-Americans are those which are expected and accommodated within the American educational system.

Cognitive Style and the Schooling Process

Participants in the schooling process are generally stratified by age and provided with a specified material content which is thought to be appropriate for them. To determine how well each has mastered the information, participants are then given tests designed to measure the expected learnings. Based on the scores of the individuals on these instruments, classroom assignment and future exposure to certain content is determined. Because these allocations often determine future occupation, education, and social mobility, concern is generated about the variability of individuals and groups on these measures.

Group differences on these measures are generally explained on the basis of variation in intelligence, reading level, chronological age, motivation, or social class. Recently, though, educators have begun to consider the possibility that some of the difference might occur because of variations in information processing approaches. As this possibility gained credence, interest in cognitive style research burgeoned.

For the most part, cognitive style proponents have concentrated their efforts on validating the construct rather than exploring the implications of style for education (Kogan, 1971; Simmons, 1979). However, there are some data available on the interaction of cognitive styles and test taking ability and the influence of cognitive styles on concept attainment and skill development. In addition, theorists have also tried to translate the stylistic preference idea into a learning style construct with a particular emphasis on the effect of various styles on pupil-teacher interaction.

The results of these explorations indicate that students in the educational

enterprise are most successful if their information processing approach has the following characteristics:

1. An attention style that focuses on the task itself, rather than on the people in the situation.
2. An abstraction ability that separates ideas and concepts into parts and reweaves them into a unified whole.
3. A perceptual style that leads to the abstraction of both obvious and nonobvious attributes that seemingly link things, ideas, or principles.
4. A perceptual style that facilitates the extraction of important information embedded in distracting influences.
5. A long attention span with prolonged concentrating ability.
6. An attending preference for verbal cues rather than nonverbal cues.
7. A reflective rather than an impulsive response style in problem solving.
8. A highly differentiated or analytical thinking style that leads to abstract and logical reasoning.

Cohen (1969), who did the seminal work in this area, suggests that this pattern represents a psychologically differentiated cognitive style which is particularly beneficial in a school setting. The style is in fact reinforced by the content of the school curricula, questions, and solutions desired on achievement and intelligence tests, and it is promoted by the use of current teaching methods.

This proposition was substantiated by other investigators. In their reviews of the relationships between various cognitive styles and indicators of success within the educational process, Kogan (1971) and Coop and Sigel (1971)

found correlations which favor the analytical, field-independent, conceptually abstract, reflective student. Although the authors agree that this type of individual might be dysfunctional in other settings, they note that the students with this particular stylistic approach seem to perform well in schools.

This trend is also evident within the Afro-American population. Riley and Denmark (1974) found that Afro-Americans who were field-independent performed better on IQ tests, and Busse (1968) found that field-independent Afro-American males performed better on problem-solving tasks. Wilde (1973) examined the relationship between conceptual style and school success and found that those Afro-Americans who were more analytical were more likely to perform better in school. These same trends have been found on learning tasks and achievement test performance (Chepp, 1975; Ferrell, 1971; Schratz, 1976; Schwartz, 1972).

The relationship between cognitive style and academic achievement has also been found in the content area of reading. Stuart (1967) found that good readers, regardless of race or sex, tended toward a field-independent perceptual style while poor readers were more field-dependent. In another study, Peterson and Magaro (1969) found that field-dependent students took longer to master a reading-type task than field-independent students. As in test performance, the psychologically differentiated learner seems to excel.

This point of view is supported by Zamm (1973) in his examination of the reading skills of Afro-Americans. According to this author, reading requires visual and auditory discrimination as well as the ability to perceptually organize symbolic patterns and space. In addition, the student must be able to

make a series of differentiated yet integrated responses. In other words, the child who is most successful in developing reading skills probably has a differentiated, analytical method of handling information processing rather than a global nonanalytic approach.

The consistency of the relationship of style and school success holds also for the studies of other identifiable cognitive styles. Afro-Americans who tend to be more reflective in their approach to work in order to make fewer errors have a better performance score on measures of achievement than those who are impulsive (Harrison & Nadelman, 1972; Reiss, 1972; Wilde, 1973). In a study by Vinson (1974) using the conceptual style system of Harvey, Hunt, and Schroder (1961), Afro-Americans who were flexible in thinking and were abstract learners had higher grades than those classified as concrete learners. Although the difference was not significant and could have occurred by chance, the authors suggest that it does demonstrate a preference by teachers for individuals who essentially epitomize the model student in stylistic preference.

Although all scholars of stylistic tendency have not chosen to study Afro-Americans, the available evidence could lead to the conclusion that the difference in school success is attributable to the use of sociocentric, field-dependent, nonanalytic categorizing information processing strategies by a large number of Afro-Americans. Since this style is not the strategy preferred in an educational setting, then racial differences would occur. Of course, other factors must be considered.

First we must wonder whether these stylistic tendencies are more prominent in the lower class than the middle class, which experiences more school success. It is a common assumption that lower class children function at a different

level on cognitive tasks than middle- to upper-class children. However, the literature in this area does not permit us to make any definitive statement about level of functioning in relation to Afro-American cognitive style. Although some studies report socioeconomic differences (Gamble, 1971; Gill, Hertner, & Lough, 1968), most find no differences (Karp et al., 1969; Palmer, 1970; Rameriz & Price-Williams, 1974; Reiss, 1972; Ritzinger, 1971). In those studies which matched cognitive style with achievement, it appeared that successful students, regardless of socioeconomic status, developed a more differentiated approach to processing information.

Second, if class is not a major determinant, is it possible that sex differences account for findings of different cognitive style tendencies? Inasmuch as Afro-American females tend to have more success in school than males (Shade, 1978), sex may be an important distinction. Sex differences in cognitive style have been reported for most groups (Kogan, 1976; Witkin, 1977); however, whether sex differences exist within the Afro-American sample cannot be determined from the available evidence. Although differences between Black females and Black males on some cognitive style measures were reported in studies by Schratz (1976) and Perney (1976), other studies reported no sex difference (Gill et al., 1968; Harrison, 1979; Ritzinger, 1971; Seitz, 1971). Sex differences are not often reported in the developmental literature for Afro-Americans and, when they are, the direction of the differences is mixed. A recent pilot study done with college students using the Embedded Figures Test and the Kohs Block Design found racial differences but no sex differences for either Afro-American or Euro-American college students in this sample (Shade, 1981).

Third, the lack of substantive evidence in the other areas suggests that

we must also consider the possibility that the differences noted in cognitive style are preferential differences in visual-spatial orientation only; Serpell (1976), in fact, suggests that we are not talking about cognitive style but about a perceptual style.

Cognitive Style or Perceptual Style?

Differences in spatial-perceptual functioning influencing cognitive performance have been found in several studies of Afro-American information-processing. In a study by Pierce-Jones and King (1960), both Afro- and Euro-American adolescents were given four tests. Two of the tests required the subjects to use the verbal mode of processing information, and two required the visual mode. The authors report that Afro-American youth did significantly better or were at least equal to Euro-Americans on the verbal synthesizing material but were very poor on the visual tasks.

In 1970 Sylvia Farnham-Diggory pursued this avenue of inquiry through three small studies in which Afro-American and Euro-American children, ages 4-10, performed three synthesis tasks. The material required the children to coordinate symbolic material with certain concepts and arrive at an inference. When verbal material was involved, racial differences did not emerge. However, when visual symbolic material was used, Afro-Americans did not perform as well as Euro-Americans. The author concluded that perhaps Afro-Americans have some spatial or visual information processing difficulty and then proceeded to remediate the difference through a training program. She found that when the distracting visual cues were removed from the presented material and substituted with memorized cues, the performance of Afro-American children was improved tremendously and approached the level of the Euro-American children.

These perceptual differences are most evident in performance on the Wechsler scales which seem to be the most commonly used measures of intelligence when racial comparisons are made. Cohen (1957, 1959) examined the WISC and WAIS scales and found three major cognitive factors present in these instruments. Factor I is labeled Verbal Comprehension which is found in the vocabulary, information, and comprehension subtests. Factor II is the Attention-Concentration element measured largely by the Digit Span, Arithmetic, and Coding subtests. Factor III is the Analytical or Spatial Perceptual aspect of the tests and is found in the Picture Completion, Block Design, and Object Assembly subtests.

The perceptual difference in performance on Cohen's (1959) Factor II (attention-concentration) and Factor III (spatial-perceptual ability) is, of course, most evident in the research by A. R. Jensen (1969) which examined racial differences in performance on basic learning tasks. Jensen's Level I tasks included Digit Span and serial-rote or paired-associate learning tasks. As reported by Goodenough (1976) and in studies by Rohwer (1971), Bridgeman and Buttram (1975), Guinaugh (1971) and Elkind and Deblinger (1969), group differences were not apparent on these attention-concentration tasks. However, on the Level II task represented by the Raven's Progressive Matrices, a visual-perceptual synthesizing test, Afro-Americans did poorly. Similar findings were reported by the other authors (Bridgeman & Buttram, 1975; Elkind & Deblinger, 1969; Guinaugh, 1971; Rohwer, 1971).

Other studies have emphasized group differences on performance tasks. In 1954, Young and Bright did a study of 81 southern Afro-American children using the WISC. Although younger children seemed to perform better on all tests than

the older group, when compared to the standardization sample Afro-Americans obtained significantly lower scores on the performance subtests, i.e., the Block Design and Object Assembly Picture Vocabulary tests. Similar findings were reported by Davidson (1950) on an adult sample.

Teahan and Drews (1962) examined the differences in Afro-American performance on verbal and performance tasks from a regional perspective. Although high on the comprehension and similarities tests, both northern and southern based Afro-American children scored significantly lower than the standardization group on the Vocabulary and Block Design tests. The southern sample had a much wider gap between the verbal and performance quotients.

In a study of racial differences in intellectual performance, Burnes (1970) compared middle- and lower-class Afro-Americans with middle- and lower-class Euro-Americans also using the WISC. Although the differences between socioeconomic classes were considerably more significant than those between races, the analysis of the subtest results showed much more racial variation on the Block Design, Object Assembly, Coding, and Maze subtests. Cole and Hunter (1971) reported similar findings for social classes.

In a more recent study of racial differences, Vance and Hankins (1979) administered the WISC-R to Afro- and Euro-American students matched on IQ and sex. Black males in the sample performed considerably better than white males on the information and verbal subtests; no female differences were noted. Black scores on the performance tasks, particularly Coding, however, were much lower than scores for whites.

This evidence, of course, has been cited numerous times as indicating an Afro-American perceptual defect. However, as Mandler and Stein (1977) point

out, this hypothesis seems to be supported by little evidence. In their review of the evidence, Mandler and Stein (1977) noted that Afro-American children consistently had lower scores on the Block Design test. The authors, however, were unwilling to attribute this solely to the hypothesis of a perceptual defect because of the various cognitive functions which have been determined to affect test performance. For example, perceptual style alone does not influence all tasks, only certain ones.

Witkin and Goodenough (1977) suggest that this is indeed the case and that perceptual styles manifest themselves differently in various situations. When the solution depends upon taking the critical element out of context, one style is useful; this type of differentiation does not seem to matter in tasks requiring short-term memory or recall. For example, Witkin and his associates (1967) found that field-independent subjects obtained much higher scores on Cohen's (1959) Factor III subtests. Similar findings were reported by Goodenough and Karp (1961), Kagan, Moss, and Sigel (1970), and Rameriz (1973) for analytically oriented individuals. Scores for field-independent and analytical individuals were better when the tests required perceptual differentiation.

In the examination of performance on tests involving Cohen's (1959) Factor II, no differences between the perceptually differentiated and perceptually diffuse individuals were found, particularly on the Digit Span subtest (Goodenough, 1976; Robinson & Bennink, 1978). In his review of studies demonstrating the relationship between learning and memory and field articulation, Goodenough, (1976) concluded that field-independent individuals are no better than field-dependent individuals at associative learning as found in paired-associate, digit memory, or serial-rote learning tasks. Robinson and Bennink (1978)

examined this same relationship and found that, while field-independent individuals tended to process the information more efficiently, there was no difference in the two perceptual problem-solving strategies when comparing actual performance on a memory test. Thus it appears that, while the differentiated perceptual style is required in spatially oriented tasks, in general, this style seems to have little relationship to performance in attention-concentration tasks.

Cultural Style and Learning

It appears that the issue of performance concerns a multifaceted processing strategy, not just one dimension. We are, thus, concerned with cognitive style. It seems very possible that the differences in performance which relate to the school context and which continue to be found are the result of a culturally induced difference in Afro-American cognitive or perceptual style preference which emphasizes a person rather than on object orientation. Although this style is probably of tremendous advantage in social and interpersonal situations, it may be antithetical to school success. In fact, Kogan (1971) points out that "one might in fact legitimately claim that a cognitive style which facilitates fine articulation and sensitivity to social situations is for many purposes more highly adaptive than a style contributing to a better articulation of the physical setting" (p. 253). If this assumption is correct, the modifiability of the style as emphasized by Kogan (1971) would not be the focus of educational change. Instead some efforts might be made as suggested by Cureton (1978) and Slaughter (1969) to change the instructional methods used with Afro-American children and teach to this culturally induced style. However, would this make a difference in school success?

Bloom (1976) points out in his examination of the individual characteristics which affect school learning that every learner brings to the task a prior history of learning. This experiential background sets the stage for how well the student is able to learn from adults and under what conditions, the work habits to be used in the tasks, the attention to be paid to task demands, and a set of likes or dislikes about school, subjects, people, ideas, or other items which might be included in the school program. For Afro-American learners, these entry characteristics seem to consist of a preference for people-oriented situations and for spontaneous and novel stimuli and situations, an ability to understand nonverbal communication, and a highly affective orientation toward ideas, things, situations, and individuals (Hale, 1981; Akbar, 1980).

Rychlak and many of his students have examined the influence of what many call affective entry characteristics to determine how these characteristics affect verbal learning, in particular, and also performance on intelligence and personality tests. In the early studies of affective factors and learning using elementary and college students, (Rychlak, 1975; Rychlak, Hewitt, & Hewitt, 1973) found that Afro-Americans were more likely to learn and remember trigrams for which they had expressed a positive preference; for Euro-American students, this affective assessment had no effect. This finding was not present in a study by August and Felker (1977) when self-concept was entered as a variable. In this study of fifth graders stratified by race and class, Euro-American students recalled liked words better than the Afro-Americans; in fact, Afro-American children with a high self-concept recalled more disliked words. Unfortunately, no real conclusion can be drawn from this inconsistency as the task used in the studies was changed. We find again, as did Simmons (1979) and Franklin (1979)

that the task and situation seem to affect the stylistic preferences which emerge. In spite of this difficulty, Rychlak (1981) has presented as a part of his logical learning theory a proposition that affection is a specific factor in learning and enters not only into verbal learning but also into performance on intelligence and personality tests.

As one examines other studies in search of the relationship between stylistic preferences and learning, it becomes very difficult to dismiss the importance of this interaction by merely indicating difficulty with the measuring instruments. Silverstein and Krate (1975), for example, examined students in a central Harlem school and found that they could classify over half of those students as "ambivalents." The primary characteristics of ambivalent students were that they needed and rather aggressively sought teacher attention, nurturance, and acceptance. When this was not given, or not granted in sufficient quantity, the children became frustrated and angry or disruptive. The authors saw the students as needing constant encouragement, recognition, warmth, and reassurance in order for them to continue participating in the schooling process.

A similar situation was noted by St. John (1971) in an ethnographic study of teacher effects on achievement. After several analyses of the data, it became very evident that Afro-American children demonstrated improved conduct, higher attendance records, and a belief in the teacher if taught by a child-oriented teacher. Characteristics of a child-oriented teacher included a demonstration of kindness, optimism, understanding, adaptability, and general warmth. The traits seemed to be those of a more affectively oriented teacher rather than a task oriented instructor.

Although Cureton (1978) identifies this as a learning style preference for

action-oriented teaching, this need for interpersonal contact seems to underlie the approach described in this essay about teachers who are able to increase the reading achievement of Afro-American students. Again, the author describes an intense, group, rather interpersonal approach which differs significantly from the traditional individually oriented, seat-work, quiet-room teaching usually advocated. It thus seems that the group consciousness, cooperative, sociocentric, and affective orientation which seems to underlie Afro-American culture has an effect upon learning the presented material.

Unlike the deficit theory approaches which blame the victim for lack of success, the focus of a stylistic approach to learning requires the identification of diversity within the educational setting. This suggests that indeed all children are not alike, cannot be treated in the same manner, nor exposed to the same instructional methodologies. It does, however, assume that all children can probably learn the same content and information if we are willing to fit it to their particular cognitive and affective behaviors.

To identify differences related to Afro-Americans is, of course, a very controversial issue, regardless of the disclaimers, values of good or bad, inferior or superior are so ingrained in our society that the issue will still lead to reinforcement of stereotypes. In fact, as we examine this issue even more closely, it could very well lead again to the nature-nurture issue assuming a major portion of the discussion. However, if we are to begin to engage in an educational revolution aimed at promoting the success of a larger percentage of the Afro-American population, it is an area which must be explored.

References

- Aiello, J. R., & Jones, S. E. Field study of the proxemic behavior of young school children in three subcultural groups. Journal of Personality and Social Psychology, 1971, 19, 351-356.
- Akbar, N. Cultural expressions of the African American child. San Francisco: Black Child Development Institute, 1975. (ERIC Document Reproduction Service No. ED 179 633.
- Aschenbrenner, J. Extended families among black Americans. Journal of Comparative Family Studies, 1972, 3, 257-268.
- August, G. J., & Felker, D. W. Role of affective meaningfulness and self-concept in the verbal learning styles of white and black children. Journal of Educational Psychology, 1977, 69, 253-260.
- Barclay, A., & Cusumano, D. R. Father absence, cross-sex identity and field dependent behavior in male adolescents. Child Development, 1967, 38, 243-250.
- Barry, H., Child, I., & Bacon, M. Relation of child training to subsistence economy. American Anthropologist, 1959, 61, 51-63.
- Battle, E. S., & Rotter, J. Children's feelings of personal control as related to social class and ethnic group. Journal of Personality, 1963, 31, 482-490.
- Bauer, E. Personal space: A study of blacks and whites. Sociometry, 1973, 36, 402-408.
- Baxter, J. C. Interpersonal spacing in natural settings. Sociometry, 1970, 33, 444-456.
- Berman, J. J. Parolees' perception of the justice system: Black white differences. Criminology, 1976, 13, 507-520.

- Berry, J. W. Human ecology and cognitive style: Comparative studies in cultural and psychological adaptation. New York: Halstead Press, 1976.
- Birnback, S. Motivation, cognitive style, and attitude change: An investigation of the relationship between external motivation, non-external motivation, field dependence-independence, sex, and attitude change. Unpublished doctoral dissertation, New York University, 1972.
- Bloom, B. J. Human characteristics and school learning. New York: McGraw Hill, 1976.
- Boykin, A. W. Psychological/behavioral verve: Some theoretical explorations and empirical manifestations. In A. W. Boykin, A. J. Franklin, & J. F. Yates (Eds.), Research directions of black psychologists. New York: Russell Sage Foundation, 1979.
- Bridgeman, B., & Buttram, J. Race differences on nonverbal analogy test performances as a function of verbal strategy training. Journal of Educational Psychology, 1975, 67, 586-590.
- Bruner, J., & Krech, D. Personality and perception. New York: Greenwald Press, 1965.
- Bruner, J. S., Goodnow, J., & Austin, G. A study of thinking. New York: John Wiley, 1956.
- Bruner, J. S., Olver, R. R., & Greenfield, P. M. Studies in cognitive growth. New York: Wiley, 1966.
- Bruininks, R. H. Auditory and visual perceptual skills related to reading performance of disadvantaged boys, Perceptual and Motor Skills, 1969, 29, 179-186.

- Busse, T. Establishment of flexible thinking factor in fifth grade boys. Journal of Psychology, 1968, 69, 93-100.
- Burkes, K. Patterns of WISC scores for children of two socioeconomic classes and races. Child Development, 1970, 41, 493-499.
- Carlson, J. S. Some relationships between class inclusion, perceptual capabilities, verbal capabilities, and race. Human Development, 1971, 14, 30-38.
- Carpenter, G. C., Tecce, J., Stechler, G., & Friedman, S. Differential visual behavior to human and humanoid faces in early infancy. Merrill Palmer Quarterly, 1970, 16, 91-108.
- Chance, J., Goldstein, A., & McBride, L. Differential experience and recognition memory for faces. Journal of Social Psychology, 1975, 97, 243-253.
- Chepp, T. The relationship of cognitive style to the attainment of success among selected disadvantaged, young adult black males. Unpublished dissertation, Catholic University of America, 1975.
- Cohen, J. Factorial structure of the WAIS. Journal of Consulting Psychology, 1957, 21, 283-290.
- Cohen, J. The factorial structure of the WISC. Journal of Consulting Psychology, 1959, 23, 285-299.
- Cohen, R. Conceptual styles, culture conflict and nonverbal tests of intelligence. American Anthropologist, 1969, 71, 828-856.
- Cohen, Y. Culture as adaptation. In Y. A. Cohen (Ed.), Man in adaptation: The cultural present (2nd ed.). Chicago: Aldine Publishing Co., 1974.
- Cole, S., & Hunter, M. Pattern analysis of WISC scores achieved by culturally disadvantaged children. Psychological Reports, 1971, 29, 197-194.

Cole, M., & Scribner, S. Culture and thought: A psychological introduction.
New York: Wiley, 1974.

Connally, P. R. An investigation of the perception of personal space and its meaning among black and white Americans. Unpublished doctoral dissertation, University of Iowa, 1974.

Coop, R. H., & Sigel, I. E. Cognitive style: Implications for learning and instruction. Psychology in the Schools, 1971, 8, 152-161.

Cureton, G. O. Using a black learning style. The Reading Teacher, 1978, 31, 751-756.

Davidson, K. S. A preliminary study of Negro and white differences on form I of the Wechsler-Bellevue Scale. Journal of Consulting Psychology, 1950, 6, 489-492.

Dick, W. Invasion of personal space as a function of age and of race. Psychological Reports, 1976, 39, 281-282.

Ducette, J., & Wolk, S. Locus of control and levels of aspiration in black and white children. Review of Educational Research, 1972, 42, 493-504.

Duncan, B. The development of spatial behavior norms in black and white primary school children. Journal of Black Psychology, 1978, 5, 33-41.

Elkind, D., & Deblinger, J. Perceptual training and reading achievement in disadvantaged children. Child Development, 1969, 40, 11-19.

Farnham-Diggory, S. Cognitive synthesis in Negro-white children. Monographs of Society for Research in Child Development, 1970, 35, 84.

Ferrell, J. G. The differential performance of lower class, preschool, Negro children as a function of the sex of E, sex of S, reinforcement condition, and level of field dependence. Unpublished dissertation, University of Southern Mississippi, 1971.

- Fisher, R. L. Thinking style and socio-economic status. Perceptual and Motor Skills, 1968, 26, 825-826.
- Franklin, A. J. Cultural content of materials and ethnic group performance in categorized recall. In A. W. Boykin, A. J. Franklin, & J. F. Yates (Eds.), Research directions of black psychologists. New York: Russell Sage, 1979.
- Galper, R. E. Functional race membership and recognition of faces. Perceptual and Motor Skills, 1973, 37, 455-462.
- Gamble, J. F. Cognitive and linguistic style differences among educationally advantaged and disadvantaged eighth-grade boys. Unpublished doctoral dissertation, University of Tennessee, 1971.
- Gibson, E. J. Principles of perceptual learning and development. New York: Appieton-Century-Crofts, 1969.
- Gill, N. T., Herdtner, T., & Lough, L. Perceptual and socioeconomic variable, instruction in body orientation and predicted academic success in young children. Perceptual and Motor Skills, 1968, 26, 1175-1184.
- Gitter, A. G., Black, H., & Mostofsky, D. Race and sex in the perception of emotion. Journal of Social Issues, 1972, 28, 63-78.
- Goldstein, K. M., & Blackman, S. Cognitive style: Five approaches and relevant research. New York: John Wiley & Sons, 1978.
- Goodenough, D. R. The role of individual differences in field dependence and factor of learning and memory. Psychological Bulletin, 1976, 83, 675-694.
- Goodenough, D. R., & Karp, S. A. Field dependence and intellectual functioning. Journal of Abnormal and Social Psychology, 1961, 63, 241-246.
- Gurin, P., & Epps, E. Black consciousness, mobility and achievement. New York: John Wiley & Sons, 1975.

- Gurin, P., Gurin, G., Lao, R., & Beattie, M. Internal-external control in the motivational dynamics of Negro youth. Journal of Social Issues, 1969, 25, 29-53.
- Guinaugh, B. J. An experimental study of basic learning ability and intelligence in low socioeconomic-status children. Child Development, 1971, 42, 27-36.
- Hale, J. Black children: Their roots, culture and learning. Young Children, 1981, 36, 37-40.
- Hall, E. The hidden dimension. New York: Doubleday & Co., 1966.
- Halpern, F. Survival black/white. New York: Pergamon Press, 1973.
- Hansley, C., & Busse, T. Perceptual exploration in Negro children. Developmental Psychology, 1969, 1, 446.
- Harrell, J. P. Analyzing black coping styles: A supplemental diagnostic system. The Journal of Black Psychology, 1979, 5, 99-108.
- Harrison, W. O. Relationship between cognitive style and selective attention in black children. In A. W. Boykin, A. J. Franklin, & J. F. Yates (Eds.), Research directions of black psychologists. New York: Russell Sage, 1979.
- Harrison, A., & Nadelman, L. Conceptual tempo and inhibition of movement in black preschool children. Child Development, 1972, 43, 657-668.
- Harvey, O. J., Hunt, D., & Schroder, H. Conceptual systems and personality organization. New York: John Wiley & Sons, 1961.
- Hill, W. H., & Fox, W. M. Black and white marine squad leaders' perceptions of racially mixed squads. Academy of Management Journal, 1973, 16, 680-686.
- Hilliard, A. Alternatives to IQ testing: An approach to the identification of gifted minority children. Sacramento: California State Department of Education, 1976.

- Hirschberg, N., Jones, L., Haggerty, E. What's in a face: Individual differences in face perception. Journal of Research in Personality, 1978, 12, 488-499
- Jensen, A. R. How much can we boost IQ and scholastic achievement. Harvard Educational Review, 1969, 39, 1-123.
- Jones, E. E. Black-white personality differences: Another look. Journal of Personality Assessment, 1978, 42, 244-252.
- Jones, S. E. A comparative proxemic analysis of dyadic interaction in selected subcultures of New York City. Journal of Social Psychology, 1971, 84, 35-44.
- Jones, S., & Aiello, J. Proxemic behavior of black and white 1, 3, 5, children. Journal of Personality and Social Psychology, 1973, 25, 21-27.
- Kagan, J. Reflection-impulsivity: The generality and dynamics of conceptual tempo. Journal of Abnormal Psychology, 1966, 71, 17-24.
- Kagan, J., Moss, H., & Sigel, I. Psychological significance of styles of conceptualization. In Cognitive development in children: Five monographs of the society for research in child development. Chicago: University of Chicago Press, 1970.
- Kagan, J., Roseman, B. L., Day, D., Albert, J., Phillips, W. Information processing in the child: Significance of analytic and reflective attitudes. Psychological Monographs, 1964, 78(1, Whole No. 578).
- Karp, S. A., Silberman, L., & Winters, S. Psychological differentiation and socioeconomic status. Perceptual and Motor Skills, 1969, 28, 55-60.
- Keil, C. Urban blues. Chicago: University of Chicago Press, 1966.
- Kelly, G. A. The psychology of personal constructs. New York: Norton, 1955.
- Kinder, D. R., & Reeder, L. G. Ethnic differences in beliefs about control. Sociometry, 1975, 38, 261-272.

- Kogan, N. Educational implications of cognitive styles. In G. S. Lesser (Ed.), Psychology and educational practice. Glenview, IL: Scott Foresman, 1971.
- Kogan, N. Cognitive styles in infancy and early childhood. Hillsdale, NJ: Lawrence Erlbaum Associates, 1976.
- Landis, D., McGrew, P., Day, H., Savage, J., & Saral, T. Word meanings in black and white. In H. C. Triandis (Ed.), Variations in black and white perceptions of the social environment. Urbana, IL: University of Illinois Press, 1976.
- Leifer, A. Ethnic patterns in cognitive tasks. Proceedings of the Annual Convention of the American Psychological Association, 1972, 7, 73-74. (a)
- Leifer, A. Mosaics of disadvantaged Negro and white preschoolers compared. Journal of Genetic Psychology, 1972, 121, 59-63. (b)
- Lesser, G. S., Fifer, G., & Clark, D. H. Mental abilities of children from different social class and cultural groups. Monographs of the Society for Research in Child Development, 1965, 30(4), Serial No. 130.
- Levine, L. W. Black culture and black consciousness. New York: Oxford University Press, 1977.
- Lewis, D., & Wilson, C. Infant development in lower class American families. Human Development, 1972, 15, 112-127.
- Liebman, M. The effects of sex and race norms on personal space. Environment and Behavior, 1970, 2, 208-246.
- Luce, T. S. The role of experience in interracial recognition. Personality and Social Psychology Bulletin, 1974, 1, 39-41.
- MacAdoo, H. The ecology of internal and external support systems of black families. Paper presented at Conference on Research Perspectives in the Ecology of Human Development, Cornell University, 1977.

- Mandler, J. M., & Stein, N. L. The myth of perceptual defect: Sources and evidence. Psychological Bulletin, 1977, 84, 173-194.
- Martin, E., & Martin, J. M. The black extended family. Chicago: University of Chicago Press, 1978.
- McClain, E. W. Personality characteristics of Negro college students in the South: A recent appraisal. Journal of Negro Education, 1967, 36, 320-325.
- McCord, W., Howard, J., Friedberg, B., & Harwood, E. Lifestyles in the black ghetto. New York: Norton, 1969.
- Messer, S. B. Reflectivity-impulsivity: A review. Psychological Bulletin, 1976, 83, 1026-1052.
- Miller, D. R., & Swanson, G. E. The changing American parent. New York: Wiley, 1958.
- Mumbauer, C. C., & Miller, J. O. Socioeconomic background and cognitive functioning in the preschool children. Child Development, 1970, 41, 471-480.
- Ogbu, J. U. Minority education and caste. New York: Academic Press, 1978.
- Orasanu, J., Lee, C., & Scribner, S. Free recall: Ethnic and economic group. Child Development, 1979, 50, 1100-1109.
- Palmer, F. H. Socioeconomic status and intellectual performance among Negro preschool boys. Developmental Psychology, 1970, 3, 1-9.
- Perney, V. H. Effects of race and sex on field dependence-independence on children. Perceptual and Motor Skills, 1976, 42, 975-980.
- Perkins, E. Home is a dirty street: The social oppression of black children. Chicago: Third World Press, 1975.
- Peterson, S., & Magaro, P. Reading and field dependence: A pilot study. Journal of Reading, 1969, 12, 287-294.

- Pierce-Jones, J., & King, F. J. Perceptual differences between Negro and white adolescents of similar symbolic brightness. Perceptual and Motor Skills, 1960, 11, 191-194.
- Rameriz, M. Cognitive styles and cultural democracy in education. Social Science Quarterly, 1973, 53, 895-904.
- Rameriz, M., & Price-Williams, D. Cognitive styles of children of three ethnic groups in the United States. Journal of Cross-Cultural Psychology, 1974, 5, 212-219.
- Reiss, E. W. The influence of race and social class upon the measurement of intelligence, cognitive style, and direct learning ability. Unpublished doctoral dissertation, Ohio State University, 1972.
- Reisman, D. The lonely crowd. New Haven: Yale University Press, 1950.
- Riley, R. T., & Denmark, F. Field independence and measures of intelligence: Some reconsiderations. Social Behavior and Personality, 1974, 2, 25-29.
- Ritzinger, F. C. Psychological and physiological differentiation in children six to eleven years of age. Unpublished doctoral dissertation, Washington University, St. Louis, Missouri, 1971.
- Robbins, H. A. A comparison study of cognitive styles across educational levels, race and sex. Unpublished doctoral dissertation, East Texas State University, 1976.
- Robinson, J., & Bennink, C. Field articulation and working memory. Journal of Research in Personality, 1978, 12, 439-449.
- Rohwer, W. D. Learning, race and school success. Review of Educational Research, 1971, 41, 191-211.
- Rokeach, M. The open and closed mind: Investigations into the nature of belief systems and personality systems. New York: Basic Books, 1960.

- Roll, W. V., Schmidt, L. D., & Kaul, T. J. Perceived interviewer trustworthiness among black and white convicts. Journal of Counseling Psychology, 1972, 19, 537-541.
- Rychlak, J. F. Affective assessment, intelligence, social class, and racial learning style. Journal of Personality and Social Psychology, 1975, 32, 989-995.
- Rychlak, J. F., Hewitt, C. W., & Hewitt, J. Affective evaluation, word quality and the verbal learning styles of black versus white junior college females. Journal of Personality and Social Psychology, 1973, 7, 248-255.
- Rychlak, J. F. Logical learning theory: Propositions, corollaries, and research evidence. Journal of Personality and Social Psychology, in press.
- Ryckman, D. B. A comparison of information processing abilities of middle and lower class Negro kindergarten boys. Exceptional Children, 1967, 33, 545-550.
- St. John, N. Thirty-six teachers: Their characteristics and outcomes for black and white pupils. American Educational Research Journal, 1971, 8, 635-648.
- Scherer, S. Proxemic behavior of primary school children with function of their SES and subculture. Journal of Personality and Social Psychology, 1974, 29, 800-805.
- Schnultz, T. C. The relationship of ethnicity to field-dependence and adjustment. Unpublished doctoral dissertation, University of Rhode Island, 1975.
- Schwartz, E. N. The effect of field dependence-field independence upon the word recognition ability of second grade subjects. Unpublished doctoral dissertation, Hofstra University, 1972.
- Schratz, M. A developmental investigation of sex differences in perceptual differentiation and mathematic reasoning in two ethnic groups. Unpublished doctoral dissertation, Fordham University, 1976.

- Crott, J. D., & Phelan, J. G. Expectancies of unemployable males regarding source of control and reinforcement. Psychological Reports, 1969, 25, 911-913.
- Seitz, E. K. The relationship between cognitive abilities and impulse control in Project Head Start children. Unpublished doctoral dissertation, New York University, 1971.
- Serpell, R. Cultural influences on behavior. London: Methuen, 1976.
- Shade, B. Social-psychological characteristics of achieving black children. Negro Educational Review, 1978, 29, 80-86.
- Shade, B. J. Racial variation in perceptual differentiation. Perceptual and Motor Skills, 1981, 52, 243-248.
- Shansky, C. R. The personality correlates of hypertension and field-dependence in black women. Unpublished doctoral dissertation, Graduate School of Illinois Institute of Technology, 1976.
- Sigel, I. E., Anderson, L. M., & Shapiro, H. Perceptual categorization of lower and middle class Negro preschool children. Journal of Negro Education, 1966, 35, 218-229.
- Silverstein, B., & Krate, R. Children of the dark ghetto: A developmental psychology. New York: Praeger, 1975.
- Simmons, W. The role of cultural salience in ethnic and social class differences in cognitive performance. Unpublished doctoral dissertation, Cornell University, 1979.
- Slaughter, C. H. Cognitive style: Some implications for curriculum and instructional practices among Negro children. Journal of Negro Education, 1969, 38, 105-111.

- Stack, C. All our kin. New York: Harper, 1974.
- Stephen, M., & Delys, P. External control expectancies among disadvantageded children at preschool age. Child Development, 1973, 44, 670-673.
- Stodolsky, S., & Lesser, G. Learning patterns in the disadvantaged. Harvard Educational Review, 1967, 37, 546-593.
- Stuart, I. R. Perceptual style and reading ability: Implications for an instructional approach. Perceptual and Motor Skills, 1967, 24, 135-138.
- Switkin, L. R., & Gynther, M. Trust, activism and interpersonal perception in black and white college students. Journal of Social Psychology, 1974, 94, 153-154.
- Szalay, L., & Bryson, J. A. Measurement of psychocultural distance: A comparison of American blacks and whites. Journal of Personality and Social Psychology, 1973, 26, 166-177.
- Taylor, J. Dimensionalization of racialism and the black experience: The Pittsburg Project. In R. Jones (Ed.), Black psychology, (2nd ed.). New York: Harper, 1980.
- Teahan, J., & Drews, E. M. A comparison of northern and southern Negro children on the WISC. Journal of Consulting Psychology, 1962, 26, 292.
- Terrell, F., & Barrett, R. Interpersonal trust among college students as a function of race, sex, and socioeconomic class. Perceptual and Motor Skills, 1979, 48, 1194.
- Triandis, H. C. (Ed.) Variations in black and white perceptions of the social environment. Urbana: University of Illinois Press, 1976.
- Vance, H. B., & Hankins, N. A preliminary study of black and white differences on the revised Wechsler Intelligence Scale for Children. Journal of Clinical Psychology, 1979, 35, 815-819.

- Vinson, A. An investigation concerning personality characteristics, classroom climate and academic achievement. Journal of Negro Education, 1974, 43, 334-338.
- Wallace, J. G. Concept growth and the education of the child. Sussex, England: National Foundation for Educational Research, 1965.
- White, J. L. Toward a black psychology. In R. Jones (Ed.), Black psychology (2nd ed.). New York: Harper, 1980.
- Wilde, J. E. A descriptive analysis of children's cognitive styles: Conceptual tempo and preferred mode of perceptual organization and conceptual categorization. Unpublished doctoral dissertation, Claremont Graduate School, 1973.
- Willis, F. N. Initial speaking distance as a function of the speakers' relationship. Psychoanalytic Science, 1966, 5, 221-222.
- Willis, F., Carlson, R., & Reeves, D. The development of personal space in primary school children. Environmental Psychology and Nonverbal Behavior, 1979, 3, 195-205.
- Willis, F., Renek, C., & Dean, L. Interpersonal touch among adults in cafeteria lines. Perceptual and Motor Skills, 1978, 47, 1147-1152.
- Williams, R. L., & Mitchell, H. The testing game. In R. L. Jones, Black psychology (2nd ed.). New York: Harper, 1980.
- Witkin, H. A. Educational implications of cognitive styles. Review of Educational Research, 1977, 47, 1-64.
- Witkin, H. A. Origins of cognitive style. In C. Scheerer (Ed.), Cognition: Theory, research, promise. New York: Harper, 1964.

- Witkin, H. A., Dyk, R. B., Paterson, H. F., Goodenough, D. R., & Karp, S. A. Psychological differentiation. New York: Wiley, 1962.
- Witkin, H., & Goodenough, D. Field dependence and interpersonal behavior. Psychological Bulletin, 1977, 84, 661-689.
- Witkin, H. A., Lewis, H. B., Hertzman, M., Machover, K., Meissner, P., & Wapner, S. Personality through perception. New York: Harper, 1954.
- Witmer, J., & Ferinden, F. Perception of school climate: Comparison of black and white teachers within the same schools. Journal of the Student Personnel Association for Teacher Education, 1970, 9, 1-7.
- Wright, W. Relationships of trust and racial perceptions toward therapist-client conditions during counseling. Journal of Negro Education, 1975, 44, 161-169.
- Wright, J. R. Nathan (Ed.) What black educators are saying. New York: Hawthorn Books, 1970.
- Wubberhorst, J., Gradford, S., & Willis, F. Trust in children as a function of race, sex, and socioeconomic group. Psychological Reports, 1971, 29, 1181-1183.
- Yarian, S. The comic book hero: A cultural fantasy. Unpublished doctoral dissertation, Adelphi University, 1974.
- Yarrow, L., Rubenstein, J., Paterson, F. A., & Kowski, J. Dimensions of early stimulation and their differential effects on infant development. Merrill Palmer Quarterly, 1971, 17, 205-218.
- Young, V. H. Family and childhood in a southern Negro community. American Anthropologist, 1970, 72, 269-288.
- Young, V. H. A black American socialization pattern. American Ethnologist, 1974, 1, 405-413.

- Young, M. F., & Bright, H. A. Results of testing 81 Negro rural juveniles with WISC. Journal of Social Psychology, 1954, 39, 219-226.
- Zamm, M. Reading disabilities: A theory of cognitive integration. Journal of Learning Disabilities, 1973, 6, 95-101.
- Zimmerman, B., & Brody, G. Race and modeling influences on the interpersonal play patterns of boys. Journal of Educational Psychology, 1975, 67, 591-598.
- Zucker, J., & Stricker, G. Impulsivity-reflectivity in preschool Head Start and middle class children. Journal of Learning Disabilities, 1968, 1, 578-584..